MARKET ORIENTATION, LEARNING ORIENTATION AND INNOVATION PERFORMANCE: THE MEDIATION OF KNOWLEDGE MANAGEMENT

Ni Made Wahyuni\textsuperscript{1}, I Gusti Ayu Ketut Giantari\textsuperscript{2}

\textsuperscript{1}Universitas Warmadewa, Fakultas Ekonomi Jl. Terompong No. 24 Denpasar, Bali
\textsuperscript{2}Universitas Udayana, Fakultas Ekonomi dan Bisnis, Jalan Sudirman, Denpasar, Bali

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Correspondence Email: mdwahyuni17@gmail.com

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ABSTRACT

Internationalization of small and medium enterprises (SMEs) contributes as a driver of the economy. It is important for SMEs to produce innovation performance. The aim of the study was to investigate the relationship between market orientation (MO), learning orientation (LO), and knowledge management (KM) on innovation performance. The research method is a cross-sectional research design. The population include export-oriented manufacturing SMEs, registered with the Bali Province Industry and Trade Office (2019). A total of 94 senior SME managers participated in the survey. Partial least square (PLS) based structural equation model was used to test the hypothesis. Finding, KM plays a mediating role in the relationship between MO and LO on innovation performance. Managers’ policies in the practice of strategic orientation and knowledge management strengthen innovation performance.

INTRODUCTION

The global era, it is important to understand how small and medium-sized enterprises (SMEs) internationalize strongly, grow and remain competitive ([Mac and Evangelista 2016]. The growth of export SMEs has a strategic role in national economic growth, employment and equitable distribution of income for welfare. SMEs have opportunities in line with the growth of the domestic and global population (Lisboa et al., 2013). In addition to economic drivers and job creation, SMEs create new ideas, processes through innovation activities (Cronin-Gilmore, 2012). The performance shown by the ability to innovate allows the company to achieve a sustainable competitive advantage (Al-Ansari et al., 2013).

In Indonesia today, SMEs in the manufacturing industry are the backbone of the economy and are currently experiencing dramatic developments (Hapsari, 2014). Data from the Central Statistics Agency (BPS) in 2019 shows that the proportion of Indonesian people
who are in industrial SME activities is very large (81%). In Bali, SMEs in the manufacturing industry are part of the business that supports the economic life of the community. Manufacturing industry SMEs contributed to the Gross Regional Domestic Product (GRDP) of Bali Province on the basis of prevailing prices by employment for 2018, amounting to 28% (BPS Statistics 2019). The contribution of the industrial sector to Bali’s total GDP is indeed not as large as other sectors such as tourism, but the continuity of the industrial sector as one of the drivers of the economy and supporting the structure of the economy must be maintained and even improved. Given the important role of SMEs, on the other hand there are opportunities and challenges in an increasingly competitive business and market environment, there is a need for companies to continue to innovate to achieve a sustainable competitive advantage (Al-Ansari et al., 2013). SMEs need to ensure behaviors that enable companies to achieve success through the ability to innovate (Roach et al., 2014). Researchers and practitioners are interested in understanding the factors that drive successful innovation (Ndubisi and Ifitikhar, 2012; Padilha and Gomes, 2016).

Furthermore, indications of the development of a business are reflected in increased performance (O’Cass and Weerawardena, 2009). Data on the development of the performance of SMEs in the export-oriented Balinese manufacturing industry seen from the export value shows that the export value is US$ 124,86,620.12 (in 2016) with export value growth of 14.79 percent. And, the export value became US $ 138,442,332.56 (in 2019) with growth reaching 1.92 percent (Bali Provincial Statistics Agency, 2019). The export value data indicates that export-oriented manufacturing SMEs continue to show performance, but when compared to growth, the trend is declining.

Innovation performance (KI) reflects the form of company achievement or achievement related to the adoption of new ideas, processes, and products (Al-Ansari et al., 2013). Innovation performance reflects the success rate of the company in innovating (Alegre et al., 2006). Likewise, one of the important factors accompanying the development of SMEs in the manufacturing industry are issues related to innovation performance. Understanding how SMEs are successful in achieving innovation-related performance and what positive factors lead to improved performance over competitors is of interest to researchers and practitioners. Finding a solution requires the use of input factors simultaneously (Liao and Barnes, 2015). Innovation performance shows the company's capacity to innovate (Zhang and Duan, 2010; Padilha and Gomes 2016; Falasca et al. 2017). The company’s mechanism in generating new ideas, processes, products, and systems to win the competition reflects the innovation performance of the organization. Innovation performance is an important resource for a company's capability to adopt new ideas, products and processes (Al-Ansari et al., 2013). Innovation performance is closely related to market orientation culture (Keskin, 2006; Carbonell and Escudero, 2010).

There is increasing interest in academics and practitioners investigating the relationship between market orientation and innovation performance (Han et al., 1998; (Raju et al., 2011).The empirical evidence from the management literature supports the resource-based view (RBV) that successful market orientation practices (MO) which is centered on customers drives innovation performance (Ndubisi and Ifitikhar, 2012).Market orientation, creating customer value can improve innovation performance. Several previous studies have found better innovation performance when companies focus on market-oriented behavior (Keskin, 2006; Roach, 2007). et al., 2014) Although it is claimed that market orientation is positively related to innovation performance, companies have realized that paying attention to customer
needs alone is not enough to successfully build innovation (Ozkaya et al., 2015). On the other hand, there is no relationship between orientation market-performance innovation is found, or research has found that market orientation has a significant effect which is more positive on innovation performance than on learning orientation (Zhou et al., 2005; Farrell, 2008; Suliyanto & Rahab, 2012; O'Cass and Heirati, 2015). The development of a market-oriented culture is only the first step to market success. Market orientation only has an impact on performance when combined with an in-company learning orientation. The level of learning orientation will affect the relationship between market orientation and innovation performance (Suliyanto and Rahab, 2012). There are still few studies linking orientation strategies (such as market orientation and learning orientation) to innovation performance in the export literature.

Learning orientation is the company’s ability to build values, learning culture as a unique resource, rare, difficult to imitate as a source of competitive advantage (Sinkula et al., 1997), enabling successful environmental adaptation (Calantone et al., 2004). Learning orientation significantly influences innovation performance (Wahyuni and Sara, 2020). Given the growing importance of competitive innovation in the global market, this research focuses on understanding market orientation and learning orientation in the context of innovation performance of export SMEs. In this study unique features rooted in capabilities, such as knowledge management are included in this research framework. Ability becomes a tool to achieve competitive advantage (Teece et al., 1997). From the point of view of the theory of resource-based view (RBV), knowledge management is a resource and a company's ability to achieve competitive advantage (Barney, 2001; Ozkaya et al., 2015). Management and marketing literature asserts that knowledge management as the ability to systematically collect, generate, analyze, integrate knowledge and communicate knowledge with customers has a relationship on innovation performance (De Luca and Atuahene-Gima, 2007; Liao and Barnes, 2015; Falasca et al., 2017). Customer knowledge management has an important role in innovation (Purcarcea et al., 2013).

Previous research has found empirical support for the relationship between market orientation and learning orientation on innovation performance (Fang et al., 2014; Mahmoud et al., 2016), the mediating effect of customer knowledge management on the relationship has not provided a clear clarification, especially how to market orientation and learning orientation affects innovation performance interactively through knowledge management in the context of SMEs, has not been revealed.

Innovation performance. According to Falasca et al. (2017), innovation performance is the success rate of companies in innovating. The ability to introduce new products, be the first to appear in the market, the level of product differentiation, and the level of product success compared to competitors (Zhang and Duan, 2010), and the suitability of the product with market demands (Falasca et al., 2017) reflect the level of innovation performance. (Padilha and Gomes, 2016) defines innovation performance as market acceptance and the benefits that accompany the introduction of innovative products/services to the market. Zhang and Duan (2010) assert that innovation performance is reflected in: a) product innovation is the ability to introduce services, ideas, processes to product characteristics, b) process innovation is the company’s ability to develop new production methods, the introduction of new technologies that are useful in improving processes; and c) efforts to develop management management methods so as to improve organizational activities which include the division of responsibilities and decision-making processes (Madrid-Guijarro et al., 2009).
Market orientation. Academics and practitioners have accepted the adoption of the marketing concept as a key strategic element for achieving success under competitive environmental conditions. Market orientation (OP) as the application of the marketing concept is understood from two main perspectives, namely the cultural approach (Narver & Slater, 1990) and the behavioral approach (Jaworski and Kohli, 1993). Based on a cultural perspective, market orientation is a company's philosophy, shared values and beliefs that place customer interests at the center of the company's thinking about strategies and operations that create customer value (Gaur et al., 2011). From a behavioral perspective, market orientation is an ongoing set of corporate intelligence generation market activities related to discovering unmet customer needs, and actual & potential customer expectations, information dissemination, and organizational actions to respond to this information (Sandvik & Sandvik, 2003; Nwokah, 2003). The company’s market orientation allows management to understand and respond to market needs effectively (Suliyanto & Rahab, 2012), enabling companies to design, adopt and adapt products, services, and methods to react to dynamic and evolving needs (Wahyuni, 2019) to offer superior customer value (Raju et al., 2011).

Learning orientation. In general, learning orientation (OB) is associated with the process of knowledge creation (Huber, 1991). According to (Levinthal & March, 1993), learning orientation shows the organization's ability to carry out the learning process into strategies to develop sustainable competitive advantages and competitive opportunities. A set of organizational values that influence the actions and efforts to obtain and share information related to customer needs, competitors' actions, and market changes that drive products to outperform competitors (Calantone et al., 2004). Learning orientation as an action to add insight to decision makers and exploit opportunities (Wolff et al., 2015). Resources and abilities shown by willingness to learn, open-mindedness in facing the challenges of a competitive environment, and the value of sharing a common vision and commitment to dealing with partners are characteristics that reflect a learning orientation to increase the effectiveness of the use of knowledge (Wu & Lin, 2013).

Knowledge management. The marketing literature has discussed the concept of knowledge management capabilities (Griffith et al., 2012; Lichtenthaler, 2016). In the era of globalization, conditions of intense competition, and fast-paced innovation, knowledge management (MP) is very important to maintain a competitive advantage. This is an important reason for companies to identify management practices within a company (Fang et al., 2014; Jyoti et al., 2011). Knowledge management (MP) is a company's strategic ability to manage information and knowledge about customer desires (Falasca et al., 2017). The industry's ability to acquire knowledge and customer experience, share knowledge with partners about products, customer needs, and apply knowledge to create new processes and products that are able to meet customer demands is a reflection of knowledge management (Lin, Che, and Ting, 2012). The important role of KM in enhancing innovation has been studied by several previous studies (Darroch, 2005; Chen and Huang, 2009; Wang and Xu, 2018).

Research questions on how to improve market orientation and learning orientation practices combined with customer-focused knowledge management to respond to changing markets and increasingly competitive competition through the creation of innovation performance are areas of research that need to be systematically examined. In addition, knowledge management as a resource and capability, this research also contributes to theory development by empirically examining the mediating role of knowledge management in the
relationship between market orientation and learning orientation – innovation performance from the perspective of Bali’s export SMEs.

Market orientation and knowledge management. Knowledge management as a framework demonstrates the ability to combine, evaluate newly generated information, expert insight, contextual information, and a combination of experiences into key elements that drive organizations to achieve success (Zebal et al., 2019). In the marketing literature it has been explained that knowledge management is determined by market-oriented strategies. The resource-based view (RBV) becomes the theoretical foundation that analyzes and explains market orientation as an intangible capability and unique resource that a company must possess to produce effective knowledge management and competitive advantage (Ozkaya et al., 2015; Li and Calantone, 1998; Griffith et al., 2012; Chao et al., 2014). Jaworski and Kohli (1993) require three key elements of market orientation, namely the ability to seek information, disseminate and respond to market-related information. Information is a source of knowledge. Market orientation as a process and activity of generating, disseminating, and responding to market intelligence affects the level of corporate knowledge (Chao et al., 2014; Cambra-Fierro et al., 2011). Previous empirical research has proven the positive effect of market orientation on knowledge management (Griffith et al., 2012). Therefore, based on the above discussion, the following hypothesis is proposed:

H1. Market orientation has a significant effect on knowledge management.

Learning Orientation and Knowledge Management. Knowledge management process refers to efforts to utilize knowledge to adapt to changes in the market environment, to innovate products/services. The concept of knowledge management is important to understand because it is a resource and company’s ability to make organizational decisions. According to (Darroch, 2005), knowledge management is the ability to identify, acquire, disseminate, and use knowledge. Knowledge management has been examined as the ability to acquire, store, distribute knowledge among employees and act in applying knowledge that leads to positive organizational outcomes such as innovation and business performance (Kiessling et al., 2009). Previous research confirmed the positive relationship of learning orientation in knowledge management (Ho, 2011; Susana Schmitz 2013). Learning orientation as a set of characteristics allows learning to occur by combining knowledge, creating new knowledge and utilizing it (Huang & Li, 2017). Thus, the following hypothesis is proposed:

H2. Learning orientation has a significant effect on knowledge management.

Market Orientation and Innovation Performance. The resource-based view (RBV) is the theoretical basis for understanding the concept of market orientation as a company's capabilities and resources and turning them into valuable outcomes for customers (Barney, 1991; Mamun et al., 2018). Market orientation reflects an organizational culture that is able to change behavior to try to understand and anticipate current customer needs and preferences and subsequently provide superior customer value (Wahyuni and Sara, 2020). On the other hand, innovation performance indicates the company’s ability to adopt new ideas, processes, policies, new products, and new services. Innovation performance is a function of the success of new products that affect overall business performance including sales volume, market share, and profitability (Padilha and Gomes, 2016). Although there is conflicting evidence
regarding empirical research on the relationship between market orientation and innovation performance (Zhou et al., 2005; Keskin, 2006), most studies have demonstrated a positive effect of market orientation on innovation performance (Sandvik & Sandvik, 2003; Vega, 2003; Vázquez et al., 2012; Wang & Chung, 2013; Jiménez-Zarco et al., 2011; Ozkaya et al., 2015). Therefore, a hypothesis is proposed:

**H3. Market orientation has a significant effect on innovation performance.**

Learning Orientation and Innovation Performance. The positive relationship between learning orientation and innovation performance is supported by several literatures (Suliyanto & Rahab, 2012; Fernández-Mesa & Alegre, 2015). There is already empirical evidence showing that learning orientation contributes positively to innovation performance (Westerlund & Rajala, 2010). Learning orientations such as open-mindedness, open communication and information sharing are predictors of innovation success (Calisir et al., 2013). According to Mahmoud et al. (2016) who conducted a study with 28 senior bank respondents in Gana, learning orientation components such as learning commitment and knowledge sharing between organizations effectively improve innovation performance. Although there is still disagreement about the relationship between learning orientation and innovation-based performance (Nasution et al., 2011), several existing studies reveal a positive relationship between learning orientation and innovation performance (Calantone et al., 2002; Alegre & Chiva 2008; Ho, 2008; Fernández-Mesa & Alegre, 2015). Thus, the following hypothesis is proposed:

**H4. Learning orientation has a significant effect on innovation performance.**

Knowledge Management and Innovation Performance. Knowledge as a result of organizational processes related to information such as market information, customers, environmental trends becomes an important source of achieving competitive advantage (Huber, 1991; Hsu, 2015). Furthermore, knowledge management shows the organization's ability to formulate knowledge management strategies in the form of knowledge acquisition obtained from customers, suppliers, professional networks, transfer and application of knowledge (Chen & Huang, 2009). Customer knowledge base is utilized for new product development, so that share performance, market demand, and profit performance increase (Eslami & Lakemond, 2016; Falasca et al., 2017). Knowledge acquisition, sharing and leveraging knowledge enable understanding of market dynamics, helping to capture changing preferences that translate into new ideas and products (Lin et al., 2012; Huang & Li, 2017; Tan et al., 2014). This study suspects knowledge management to be a significant factor in improving innovation performance. Thus, the following hypothesis is proposed:

**H5. Knowledge management has a significant effect on innovation performance.**

Integration and coordination of individual knowledge and organizational knowledge helps companies learn, create, develop, disseminate, and use knowledge (Jyoti et al., 2011). Knowledge management as a systematic process that involves the acquisition, dissemination, and responsiveness of knowledge and the use of knowledge more efficiently contributes positively to the process of innovation and performance (Darroch, 2005). Knowledge
management is determined by two strategic orientations, namely market orientation and learning orientation (Grinstein, 2008). Bicen and Hunt (2012) research conducted in the United States emphasizes market orientation as a market-oriented alliance capability that enables organizations to collectively and systematically gather market intelligence to understand customer needs and preferences, disseminate information, and respond to market intelligence that has been gathered. A high level of market orientation effectively improves knowledge management (Chao et al., 2014), and furthermore, knowledge management becomes the basis for building innovation performance (Lin et al., 2012; Jain and Moreno 2015).

Furthermore, there is empirical research evidence showing that learning orientation has a positive effect on knowledge management abilities and subsequent innovation performance (Marques et al. 2018). Learning in organizations as a continuous learning activity, sharing vision, information disclosure encourages the process of creating knowledge, disseminating, transforming knowledge, getting meaning from knowledge, and utilizing knowledge. Thus there is a positive relationship between learning orientation and knowledge management (Kuo, 2011). It is believed that knowledge management contributes to innovation performance (De Luca & Atuahene-Gima, 2007; Jyoti et al., 2011). Thus the research put forward the following hypothesis:

H6. Knowledge management positively mediates the relationship between market orientation and innovation performance.

H7. Knowledge management positively mediates the relationship between learning orientation and innovation performance.

Figure 1 shows the proposed conceptual model.

![Conceptual Framework](image)

**Figure 1. Conceptual Framework**

**RESEARCH METHOD**

Research designs. This study used a cross-sectional design. Small and medium enterprises (SMEs) with a research focus on manufacturing with one of its main functions in the end is to determine survival, growth, and long-term profits (Gaur et al., 2011). The research developed a conceptual model and the model was tested empirically. Furthermore,
quantitative analysis based on multivariate analysis using structural equation modeling or SEM (structural equation modeling) based on Partial Least Square (PLS) was used to connect the constructs and test the path of our proposed hypothesis (Hair et al., 2014).

Research Data Sources. This research is focused on the export-oriented garment or apparel industry in Bali. Bali as one of the provinces in Indonesia has cultural arts that are contained in the form of clothing which is a creative industry in Bali. The selection of the object of this research is based on the following considerations: First, manufacturing SMEs are one of the SMEs that are oriented towards domestic and global markets. Second, manufacturing SMEs are considered to be the businesses most in need of innovation with designs and modifications as the demands of the rapidly changing market demands. The secondary data source comes from the Bali Province Central Statistics Agency (2019) to find out the number of export manufacturing SMEs, and the results of Bali’s SME manufacturing products (BPS Statistics, 2019). Primary data sources come from respondents' answers and perceptions related to market orientation, learning orientation, knowledge management, and innovation performance factors.

Research variable. The latent variables in this study consist of: 1) exogenous variables (market orientation and learning orientation); 2) endogenous variables (knowledge management and innovation performance). Market orientation consists of nine items adopted from previous research (Suliyanto & Rahab, 2012; Wahyuni, 2019). Learning orientation as behavior and ability to determine basic attitudes towards learning is measured by six items adopted from (Calantone et al., 2002; Lages & Styles, 2009; Wu & Lin, 2013). Knowledge management that reflects the ability to build the process of finding, selecting and utilizing information and knowledge is measured by items adopted from previous research (Ho, 2011; Lin et al., 2012). All latent variable items were measured using a five-point Likert scale (1=strongly disagree to 5=strongly agree). Innovation performance is measured by previous research items (Alegre and Chiva, 2008; Ozkaya et al., 2015; Falasca et al., 2017; Wahyuni, 2019).

Research Instruments. The instrument used in collecting data is a questionnaire. The questionnaire that became the instrument in this study was tested for validity and reliability to ensure that the conditions for using an instrument were met. Test the validity of the instrument using the Pearson product moment test, where the question item is declared valid if the correlation coefficient (r count> 0.30). And, the reliability test uses Cronbach’s alpha criteria provided that if the Cronbach’s alpha value 0.60 then the construct used is reliable (Hair et al., 2014). Next, managers were asked to rate their perceptions of market orientation, learning orientation, knowledge management practices and innovation performance on a five-point Likert scale (1=strongly disagree, 2=disagree, 3=neither, 4=agree, and 5=strongly agree).

Population, Sample and Data Collection. The unit of analysis is the company with the subject of research is the manager of export manufacturing SMEs. Thus, the research population is all manufacturing SMEs operating in Bali, with the number of employees managed by the company totaling between 10 and 99 people (Bali Provincial Statistics Center, 2019). Bali was chosen as the research location for reasons of the function and presence of SMEs in Bali in supporting the tourism sector and meeting consumer needs. The population in this study amounted to 561 manufacturing SMEs officially registered in (Bali Provincial Statistics Agency, 2019). Determination of sample size refers to the Slovin formula and produces a total sample size of 242 samples. The survey was conducted online among the management/owners of Bali manufacturing SMEs. A total of 242 questionnaires were
distributed, of which 117 were returned. Then, 31 questionnaires were discarded, because the information provided was incomplete. Thus, this study used 94 questionnaires with an effective response rate of 38.84 percent.

**Data analysis method.** This study uses descriptive and inferential statistical data analysis to understand the data taken from the questionnaires filled out by the respondents. Descriptive statistical analysis in this study is useful for knowing the frequency distribution of respondents' answers to the indicators of the research variables. Inferential statistical analysis uses PLS (Partial Least Square) to estimate path relationships in a research model that uses latent constructs with several indicators (Joseph F. Hair, Jr., G. Tomas M. Hult, Christian M. Ringle, 2013).

**RESULTS AND DISCUSSION**

**Results.** The SmartPLS 3.0 analysis tool produces two levels of model assessment, namely: (1) construct measurement model with reflexive indicators to determine the validity of construct indicators and construct reliability and (2) structural model evaluation (path coefficient and R2) (Hair, et al. 2014).

Measurement Models. The criteria for indicator validity are measured by convergent validity and discriminant validity. Furthermore, testing reliability to ensure the internal consistency of the construct is measured by Cronbach's alpha, composite reliability and average variance extracted (AVE), where the reliability measurement value must be above 0.70. Convergent validity results are adequate if the loading factor value of all measurement items is at least 0.70, but for exploratory research, loading 0.40 is still accepted (Mamun et al., 2018). The results of discriminant validity are adequate if the value above 0.50 indicates the validity of the construct items can be accepted. Another method to assess construct reliability is to assess the AVE result for each construct 0.50 (Sarstedt et al., 2014). Table 1 shows the results of loading factor, Cronbach's alpha, composite composite, and AVE, where all values are above the threshold.

Structural models. The relationship between the constructs was tested using partial least square structural equation modeling (PLS)-SEM. The SmartPLS 3.0 modeling provides path analysis results from the conceptual model in the form of and R2. The symbol as the path coefficient implies the strength of the relationship between the constructs of the model, while R2 indicates the percentage of construct variance in the model (Chin and Dibbern, 2010). The hypothesis is accepted if the p-value <0.05. This study uses a 95 percent confidence level (α=0.05). The correlation coefficient value is used to determine the direction of the correlation relationship. The positive correlation coefficient shows a unidirectional relationship between constructs, and vice versa. In the hypothesis testing stage, it is very important to pay attention to the influence indicated by the arrow direction between the latent variables, namely market orientation, learning orientation, knowledge management, and innovation performance. The hypothetical path between market orientation and knowledge management is 0.238 with a t-value of 3.640 (β=0.238; p<0.05), where the t-value exceeds 1.96, so it can be said that this relationship is significantly positive, H1 is supported. The findings are consistent with the existing literature which reports that companies that tend to explore customer desires by actively exploring market information contribute to strengthening customer-focused knowledge management (Cambra-Fierro et al., 2011).
With regard to the path value between learning orientation and knowledge management (H2), a coefficient of 0.605 was found with a t-value of 9.264. Because the t-value exceeds 1.96, the relationship between learning orientation and knowledge management is considered significant positive at the 5 percent level, H2 is supported. For this reason, companies should build a learning culture by establishing long-term partnership relationships and a commitment to learning for generations and acquiring new knowledge (Ho, 2008). Surprisingly, the path value of market orientation and innovation performance (H3) was found to be 0.161 (β=0.161; p>0.05) with a t-value of 1.922. Because the t-value is smaller than 1.96, the relationship between market orientation and innovation performance is not significant. The results of this study fail to confirm the relationship between market orientation and innovation performance, H3 is rejected. The results of this study are surprising because there is no support for hypothesis 3 regarding the relationship between market orientation and innovation performance. This study contrasts with what has been found by (Jiménez-Zarco et al., 2011). Thus this study failed to confirm the existence of a relationship between MO and innovation performance, at a significance level of 5 percent. This study differs from many previous studies which found a significant positive relationship between market orientation and innovation performance (Wang and Chung, 2013; Sandvik and Sandvik 2003).

Then, the value of the learning orientation path on innovation performance is 0.404 with a t-value of 4.546 (β = 0.404; p <0.005). Since the t-value is more than 1.96, this relationship is positively significant, H4 is accepted. The results of this study are consistent with the existing literature. A culture of commitment to learning and knowledge sharing between organizations significantly determines better innovation performance. Organizations that place a high value on openness and organizational appreciation for employee original ideas, help SMEs improve their ability to produce products that match customer desires and expand market share (Calisir et al., 2013; Mahmoud et al., 2016).

And, the path coefficient between knowledge management and innovation performance is 0.380 with a t-value of 3.821> 1.96 (β = 0.380; p <0.05). These results indicate that knowledge management has a statistically significant positive impact on innovation performance at the 5 percent significance level, H5 is supported. This finding strengthens the study of Huang and Li, (2009) which explains that social interaction strengthens the ability to manage and utilize knowledge so as to support innovation-based performance. On the other hand, knowledge management partially mediates the relationship between market orientation and innovation performance (β= 0.074; p<0.05). The results of this study lend credibility to the findings (Huang and Li, 2009) which suggest that SME managers and/or managers should establish a market-oriented organizational environment and communicate explicit marketing plans and knowledge-based market information to all employees in all parts of the organization in order to achieve organization goals. And, knowledge management partially mediates the relationship between learning orientation and innovation performance (β= 0.173; p<0.05). Organizational efforts create a learning climate and culture by collaborating and encouraging team learning to facilitate organizational efforts to improve and update knowledge to strengthen a sustainable competitive advantage (Jain and Moreno, 2015).

The coefficient of determination using R-squared (R2) is a goodness-fit test model that evaluates the research model and evaluates what percentage of the variance of the endogenous construct can be explained by the construct that is thought to influence it (exogenous). The R-squared of the knowledge management construct of 0.507 indicates that the variance of knowledge management can be explained by 50.7 percent by the variance of market
orientation and learning orientation. And, the R-squared of the innovation performance construct is 0.630 which can be explained, meaning that the variance of innovation performance can be explained by 63 percent by the variance of market orientation, learning orientation, and knowledge management. Alternatively, innovation performance can be shaped by market orientation, learning orientation, and knowledge management by 63 percent. The results of the hypothesis test, the coefficient of the relationship between the constructs, the level of significance, and the R-square value are summarized in Table 2.

Discussion. This study aims to understand the innovation process that is useful for the company. However, the achievement of innovation is a dynamic process in which strategies are determined to determine knowledge so that it can be used to innovate (Wu and Lin, 2013). Innovation performance is clearly influenced by several factors such as strategic orientation such as market orientation, knowledge management ability and learning. Therefore, clearly understanding how the dynamics of market orientation as a culture and strategy as well as what key factors are needed to create successful innovation is important for the entity. Table 2 shows that all hypotheses are supported, except hypothesis 3. The reason for this finding is because the company’s focus is on understanding customers by hearing complaints, seeking market information (customers, competitors, suppliers) only as a discourse without the desire to apply information to new knowledge, so it has no effect on innovation performance. In fact, market orientation practices demonstrated by the behavior of seeking high quality, relevant, reliable, accurate, and timely information when needed will lead to increased response at the company level so that the process of idea adoption, as well as product modification and innovation increases (Ozkaya et al., 2015).

Table 1 Results of Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path coefficient (β)</th>
<th>T-statistic</th>
<th>Significance</th>
<th>R-square</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1. MO → KM</td>
<td>0.238</td>
<td>3.640</td>
<td>0.000</td>
<td>0.507</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2. LO → KM</td>
<td>0.605</td>
<td>9.264</td>
<td>0.000</td>
<td></td>
<td>Accepted</td>
</tr>
<tr>
<td>H3. MO → IP</td>
<td>0.161</td>
<td>1.922</td>
<td>0.055</td>
<td></td>
<td>Reject</td>
</tr>
<tr>
<td>H4. LO → IP</td>
<td>0.404</td>
<td>4.546</td>
<td>0.000</td>
<td></td>
<td>Accepted</td>
</tr>
<tr>
<td>H5. KM → IP</td>
<td>0.380</td>
<td>3.821</td>
<td>0.001</td>
<td>0.630</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Mediation effect of knowledge management

| H6. MO → KM → IP | 0.090 | 2.458 | 0.0 | Full mediation |
| H7. LO → KM → IP | 0.230 | 3.951 | 0.0 | Mediasi parsial |

Note: MO = Market orientation; LO = Learning orientation; KM = Knowledge management; IP = Innovation performance

Source: Author’s data analysis (2020).

Although H3 is rejected, specifically H6 shows that market orientation indirectly affects innovation performance through knowledge management. Interesting findings, the indirect relationship of learning orientation to innovation performance mediated by knowledge management is also significantly positive. The ability to do learning within organizations provides decision makers with informative and analytical insights. Wolff et al., (2015) show learning orientation as a shared vision behavior across the organization, open mind, and advanced learning commitment to improve knowledge management to address problems related to needs, customer preferences to get valuable products/services (Jyoti, Gupta, and Kotwal, 2011). Thus, the findings of this study present a viewpoint on the integration of
knowledge management on the indirect effects of market orientation and learning orientation on innovation performance.

CONCLUSIONS

Our study modifies and empirically validates the conceptual model. The effects of market orientation and learning orientation on knowledge management and innovation performance are currently receiving less attention. This study seeks to help fill an old gap (Keskin, 2006) by offering a contribution to market orientation and learning orientation culture in customer-focused knowledge management and innovation performance in the context of SMEs. Referring to the research findings, a number of conclusions and suggestions can be used. While this study finds a direct relationship of learning orientation on innovation performance, it is very important for the entity to create a learning oriented environment to achieve superior innovation performance. Existing literature on SMEs suggests that companies implement marketing plans with the courage to challenge assumptions and values and develop customer information. This study suggests that in order to improve learning orientation in SMEs, companies should emphasize the importance of openness and willingness to challenge assumptions, values or views to absorb insights, market information and new customer-based knowledge so that they have a positive effect on improving innovation performance.

Market orientation was not found to have a significant direct effect on innovation performance. This finding is a bit surprising, considering that Zhang and Duan, 2010) emphasize the strong will to shape a market-oriented culture with an Asian perspective and the integration of coordination between functions and the willingness of managers to utilize information and other resources to encourage innovation-based performance. However, the simple explanation of hearing customer complaints, in the context of this research, is that there may be a fundamental reluctance of SMEs to respond to customer complaints and suggestions as a source of new information and knowledge.

This study still has a number of limitations that need to be considered and possibly discussed in future research. First, highlights from a strategic orientation perspective (eg market orientation and learning orientation) are combined with knowledge management to explore its mechanisms on innovation performance. Future research can be carried out by exploring more deeply the mechanism of how the orientation strategy with organizational capabilities produces new product performance. Second, this study specifically uses a sample consisting of one manufacturing SME industry. This approach reduces the generalizability of the results. The direction of future research is to conduct research on orientation strategies with the context of SMEs in the manufacturing and service sectors. Third, for future research directions, it is suggested to develop a research model by adding other concepts such as strategic orientation and the utilization of knowledge effectiveness to achieve sustainable competitive advantage.

REFERENCE


